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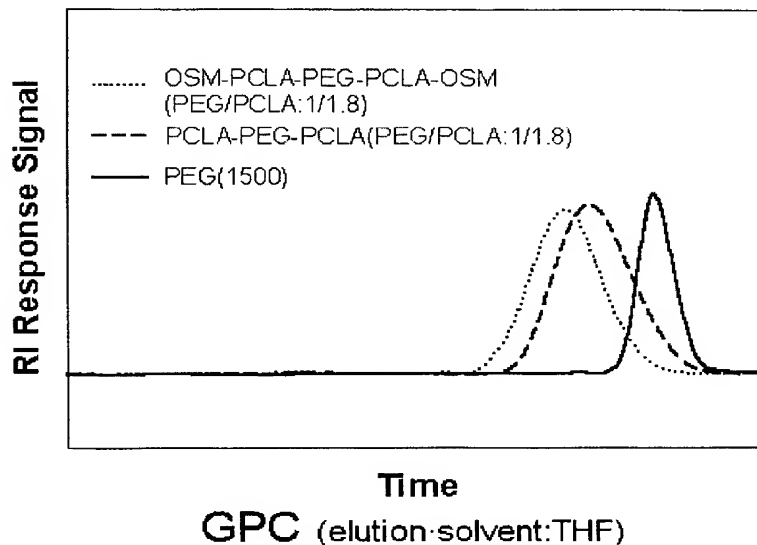
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(54) Title: PH AND TEMPERATURE SENSITIVE HYDROGELS



(57) Abstract: The present invention relates to a block copolymer formed by coupling the following components with each other, as well as a hydrogel composition comprising the block copolymer and a hydrogel formed from the composition: (a) a copolymer of a polyethylene glycol (PEG)-based compound with a biodegradable polymer; and (b) a sulfonamide-based oligomer. The inventive block copolymer shows the sol-gel transition behavior sensitive to changes in not only temperature but also pH. Thus, the inventive block copolymer overcomes the shortcomings of temperature-sensitive copolymers, form a more strong and stable hydrogel, and is stable in vivo. Accordingly, the inventive block copolymer can be used in various applications in the medical and drug delivery fields.

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